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The politics of water

How water scarcity threatens geopolitical

All life is water. It makes up 70% of the human body and composes 95% of our blood. Modern society allows us to take water for granted, since its consumption requires only the turning of a tap. We grow up in an environment where water scarcity is neither experienced nor heard of. Access to potable water must, however, be taken seriously. Of the planet's total surface area, 71 percent is composed of water. Of this vast amount, 97.5 percent is saltwater, leaving 2.5 percent as freshwater available for consumption. But of this portion, 70 percent is frozen in icecaps while 29 percent lies underground as soil moisture. That leaves us with a minuscule one percent freshwater available for human consumption.

Besides consumption, we depend on water to produce goods from food to industrial products. Water is critical to the production of electricity, coal mining, and oil and gas refineries. Yet we are unaware of water scarcity, and so many of us lead lives oblivious to the consequences of this diminishing commodity. Water scarcity affects 40 percent of the world's population and by 2025, two-thirds of the global population will be living in water stressed conditions.[1]

A water crisis is looming—75 percent of the world's population could potentially face freshwater scarcity by 2050.[2] The availability of water is thus essential in the development of national economies and government policies in the future. Global water shortages are already threatening economic growth and geopolitical stability.

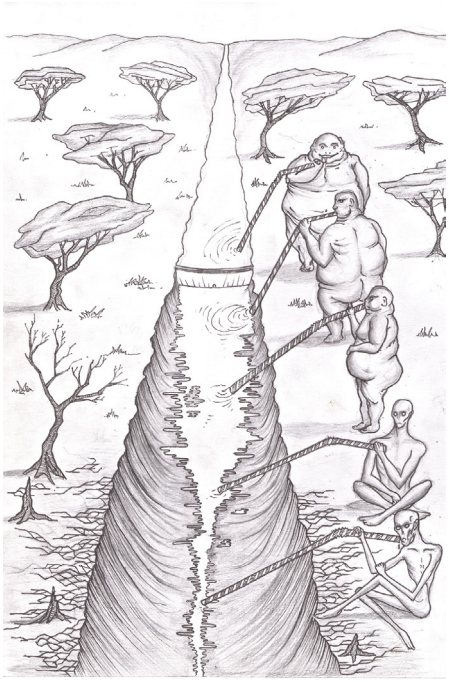
This article will draw its focus on South Asia's water crisis and its politics, where the matter is gaining increasing attention and has major implications for the region's population.

The politics of water

Water will inevitably become a source of conflict in South Asia. The region's three major rivers — the Indus, Ganges, and the Brahmaputra — sustain water supplies for China, India, Pakistan, and Bangladesh. These countries fall into a region classified as water stressed; meanwhile, the region's population increases by 25 million per year.[3] According to the Asian Development Bank, South Asia's per capita water availability has dropped by 70 percent in the last 60 years.

India as both an upper and lower riparian country finds itself in dispute with downstream neighbours Pakistan and Bangladesh, who accuse it of attempting to dominate water flows. India, meanwhile, fears the same of upstream China who is planning extensive dam building projects over the Tsangpo River, the largest river in eastern India.

The construction of Baghilar Dam in the disputed Kashmir region near Wular, the largest freshwater lake in India, has triggered fierce opposition from Pakistan, who sees it as an effort to withhold and divert their rightful water. The view is that the Baghilar Dam marks the beginning of Indian control over the headwaters of the Indus.[4] The accusation is that India intends to block Indus River access to make Pakistan entirely dependent on India.[5] The cumulative effect of Baghilar Dam and similar projects could enable India to store enough water to limit the supply to Pakistan at crucial times in the monsoon seasons[6], fomenting significant bilateral tension.



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Upstream, India dismisses these allegations, stating that projects like Baghilar Dam consume nothing since water must flow to run turbines and such dams merely delay a river. India claims to abide by the Indus Water treaty of 1960 which sets out how water is to be shared post the partition of the Indo-Pak subcontinent. The treaty details exactly how each side must use cross-border rivers—mainly applying to the streams that flow from Kashmir to form the massive Indus River which is Pakistan's lifeline.[7] Pakistan's objection to the Baghilar Dam design has invited international arbitration in the past. India has accepted modifications to the design of the dam based on this arbitration.

To add to the geo-political tension of the region, more dams and hydropower projects in Kashmir are on the agenda as India grows economically. The Indian senate reports 33 hydro projects in the border area with over 60 dam projects planned.[8] This could easily spark new confrontations. The latest is on the Kishanganga River, where both countries are racing to build a hydropower dam on their respective sides of Kashmir's disputed line of control. India's dam will divert river water, decreasing water flow to Pakistan's downstream dam, diminishing planned power capacity and depriving an expected 600,000 people of adequate irrigation water.[9] Once again, in September 2011, India was ordered to suspend building for further arbitration.[10] Pakistan's concern over India's control of water flows and the building of hydro projects will only increase with time. The Indus waters over 80% of Pakistan's irrigated land and serves 180 million people, making the coun-

in South Asia

stability in South Asia, by Ally Memon

try deeply sensitive to water scarcity.[11] More political row is certain in the future between India and Pakistan as both nations become increasingly desperate for water access. India may continue dismissing Pakistani concerns quite easily given its convenient position upstream. But India faces its own is downstream concerns thanks to its border with China.

China refuses to recognise Arunachal Pradesh as India's land, and disputes over the region's rivers create rifts over territory. One of India's largest rivers, the Brahmaputra flows south from Tibetan Plateau into Assam. Most recently, India has faced China's blockage of an attempt by the Asian Development Bank to prepare for a dam project in Arunachal Pradesh.[12] India appears very concerned over the construction of several hydroelectric schemes being built upstream on the Tsangpo and the alleged intentions of China to divert the Brahmaputra to farmers in the water-scarce central and eastern regions. India's position downstream fosters its fear that China will control the Tibetan plateau, an important source of water for the densely populated states of northern India.[13]

An inevitable problem and growing concern

What remains certain is that South Asian basins depend on China to let water flow freely to them downstream. That is because the main river systems—the Indus, the Ganges and the Brahmaputra—are all connected to the Tibet Autonomous Region of China.

With China and India's speedy construction of dams and hydropower plants to meet their water and energy needs, the region is witnessing cross-nation dependence. Imbalances of water availability present potential for inter-state conflict. The Indus Water Treaty of 1960 and other bilateral treaties are not adequate to stop the dam-building races of upstream countries spurred by the need for energy and the insecurity of diminishing water sources. Put simply, what upstream nations view as a need, downstream nations view as a threat.

Scarcity of water will become harder to manage as the region's population grows by 1.7% yearly, creating more demand for food as water tables diminish and as uncertain climate change increases. The effects are already apparent—increased pumping for groundwater because of dry water tables has led to arsenic poisoning of over 77 million people in Bangladesh.

Weak river flows in several south Asian rivers are unable to dispose of waste (both natural and artificial) and the waters are becoming increasingly unsafe for drinking, cleaning, and cropping. This leads to parasitic diseases such as Naegleria and deadly viruses like dengue fever. Filthy waters and poor sanitation spread disease such as diarrhoea and cholera, killing millions every year in repeated epidemics. Water tables are dropping, evidenced by the Ganges' entrance into Bangladesh and the delta of the Indus in Pakistan, which are becoming walkable deserts.[14]

Governments in South Asia can deal with the growing water scarcity by improving water management systems and collaborating with one another rather than sprinting to build dams and divert water. If grim relations between South Asian countries persist, then they will provoke clashes rather than cooperation over water.

Unwillingness to negotiate on river sharing issues signals impending discord over water in South Asia. Urgency is needed to create multilateral arrangements under international law and to practise inter-basin water sharing; otherwise, armed conflict may be on the horizon for the increasingly water-stressed region.

In the words of Alexandra Cousteau, "Water will be the defining crisis of our century, the main vehicle through which climate change will be felt—from droughts, storms, and floods to degrading water quality. We'll see major conflicts over water; water refugees. We inhabit a water planet, and unless we protect, manage, and restore that resource, the future will be a very different place from the one we imagine today."[15]

Benjamin Franklin once said, "When the well's dry, we shall know the value of water." It is time to wake up to the fact that the wells are running dry. Water scarcity is—and increasingly will be—a threat to geopolitical stability in South Asia and beyond. The escalating rivalry between South Asian countries over their region's rivers only intensifies the problem. Diplomatic dialogue and political cooperation is the only way forward.

[1]Haq, N. (2010) Pakistan's Water Concerns. [Online] Available at: <http://ipripak.org/factfiles/ff127.pdf> [Accessed 02 August 2012]
[2]Chellaney, B. (2012) Asia's worsening water crisis, Survival: Global Politics and Strategy, 54 (2) pp. 143 – 156 [Online] Available at: <http://www.tandfonline.com/doi/abs/10.1080/00396338.2012.672806> [Accessed 02 August 2012]
[3]Water Politics (2012) South Asia: Dam disputes and water tension. [Online] 23 July Available at: www.waterpolitics.com/2012/07/23/south-asia-dam-disputes-and-water-tension [Accessed 09 August 2012]
[4]Bhalla, N. (2012) Thirsty South Asia's river rifts threaten "water wars". AlertNet. 23 July[Online] Available at: <http://www.trust.org/alertnet/news/thirsty-south-asias-river-rifts-threaten-water-wars> [Accessed 07 August 2012]
[5]Astitwa (n.d.) The Asian Water Crisis: An imminent danger for world peace. Youth Ki Awaaz. n.d [Online] Available at: <http://www.youthkiawaaz.com/2012/05/the-asian-water-crisis-an-imminent-danger-for-world-peace> [Accessed on 28 July 2012]
[6]N.A. (Nov 19, 2011) South Asia's Water Unquenchable Thirst. The Economist [Online] Available at: http://www.economist.com/node/21538687 [Accessed 04 August 2012]
[7]Junejo, J. (2012) Water Crisis in South Asia. Dawn, [Online]16 July. Available at: <http://dawn.com/2012/07/16/water-crisis-in-south-asia> [Accessed 04 August 2012]
[8]BBC (2010) Bangladesh: 77 m poisoned by arsenic in drinking water accessed. BBC News [Online] 19 June. Available at: http://www.bbc.co.uk/news/10358063 [Accessed 09 August 2012]
[9]Herriman, R. (2012) Extremely rare outbreak of Naegleria kills 8 in Pakistan according to reports. Outbreak News [Online] 20 July. Available at: < http://outbreaknews.com/2012/07/20/extremely-rare-outbreak-naegleria-kills-8-pakistan-reports/> [Accessed 10 August 2012]
[10]Jahan, F. (2011) Dengue Fever (DF) in Pakistan. Asia Pacific Family Medicine. [Online] 24 February. Available at < http://www.apfmj.com/content/10/1/1> [Accessed 11 August 2012]
[11]Water Politics (2012)Defining the Politics of a thirsty world [Online] Available at: <www.waterpolitics.com> [Accessed 10 August 2012]
[12]Water Crisis, Dawn